APRIL/MAY 2023

CBC51 — ENZYMES AND INTERMEDIARY METABOLISM

Time : Three hours Maximum : 75 marks

Sengunthar Industries Arts & Science College * T.V.Malai

SECTION A — (10 × 2 = 20 marks)

Answer ALL questions.

1. Define enzymes.

2. What is meant by isoenzyme and give an example?

3. What is the process of ATP synthesis?

4. What is the end product of Glycolysis pathway?

5. How many ATP are produced during TCA cycle?

6. What are Ketone bodies and when are they produced?

7. What is the different between saturated and unsaturated fatty acids?

8. Define amino acid pool.

9. What is the main function of GABA?

10. What is the role of nucleic acid metabolism?

SECTION B — ($5 \times 5 = 25$ marks)

Answer ALL questions.

11. (a) Give a short note on the lock and key mechanism for enzyme action.

Or

(b) Outline the IUB classification of enzymes with suitable examples for each types.

12. (a) Describe the glycolysis cycle.

Or

(b) Write a note on the HMP shunt.

13. (a) Explain the β oxidation of fatty acids.

Or

(b) Comment about ketogenesis.

14. (a) Describe about the biosynthesis of creatinine.

Or

(b) Explain the reactions and regulations of Urea cycle.

15. (a) Explain the pyrimidine degradation pathway.

Or

(b) Comment the clinical manifestations of Gout.

SECTION C — ($3 \times 10 = 30$ marks)

Answer any THREE questions.

16. Derive the Michaelis Menten equation.

17. Discuss about the components of electron transport chain.

18. Explain briefly on biosynthesis of cholesterol and its regulation.

19. Describe about the degradation of protein.

20. Outline the pathway for pyrimidine synthesis.
